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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,512	07/07/2003	Yung-Ho Chuang	KLAC0075	9347
30438	7590	05/02/2006	EXAMINER	
SMYRSKI LAW GROUP, A PROFESSIONAL CORPORATION 3310 AIRPORT AVENUE, SW SANTA MONICA, CA 90405			FINEMAN, LEE A	
			ART UNIT	PAPER NUMBER
			2872	

DATE MAILED: 05/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/615,512

Applicant(s)

CHUANG ET AL.

Examiner

Lee Fineman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-9,70 and 75-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-9,70 and 75-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6 March 2006 has been entered in which claims 1, 75, 83 and 86 were amended. Claims 1-2, 5-9, 70 and 75-91 are pending.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 75, 82, 83, 85, 86 and 91 are rejected under 35 U.S.C. 102(e) as being anticipated by Leidig, US 6,388,819 B1.

Regarding claims 75, 83 and 86, Leidig discloses in fig. 5, a system for inspecting a specimen (8) comprising: an illumination system (11) able to provide light energy having a wavelength within a predetermined range; and an imaging subsystem (4) oriented and configured to receive said light energy from said illumination system and direct light energy toward said specimen (fig. 5), said imaging subsystem comprising a plurality of elements (1, 2, 3) all aligned

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along a single axis (fig. 5), being free of planar reflective surfaces (fig. 5) and having a diameter less than 100 millimeters (column 7, lines 31-34);. The method of utilizing the structure of the claim is inherent therein.

Regarding claims 82, 85 and 91, Leidig further discloses a data analysis subsystem (15 and 16) for analyzing data representing the light energy reflected from the specimen (column 9, lines 44-63), wherein the data analysis subsystem has the ability to record defect position for any defect on the specimen (column 9, lines 44-63).

4. Claims 1-2, 5-9, 70 and 75-91 are rejected under 35 U.S.C. 102(b) as being anticipated by Shafer et al., US 6,842,298 B1.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claims 1, 70, 75-76, 83 and 86-87, Shafer et al. disclose in figs. 3 and 7, a system (fig. 7) for inspecting a specimen comprising: an illumination system (101) comprising an arc light able to provide light energy having a wavelength in the range of approximately 285 to 320 nanometers (column 10, lines 5-21); and an imaging subsystem (fig. 3) oriented and configured to receive said light energy from said illumination system and direct light energy toward said specimen, said imaging subsystem comprising a plurality of elements all aligned

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along a single axis (fig. 3), being free of planar reflective surfaces (fig. 3) and having a diameter less than 100 millimeters (as the drawing is to scale, all elements are less than 100 millimeters); and wherein the catadioptric optics support wavelengths from approximately 266-600 nm (in at least so far as this wavelength range will pass through the optics). The method of utilizing the structure of the claim is inherent therein.

Regarding claims 2, 77, 84 and 88, Shafer et al. further disclose wherein said plurality of optical elements comprises a mangin mirror arrangement (304 and 305).

Regarding claims 5, 78, and 89, Shafer et al. further disclose wherein said plurality of optical elements comprises collection optics (102) for collecting light energy reflected from said specimen (fig. 7), wherein the collection optics are catadioptric (102 and fig. 3).

Regarding claims 6, 79 and 90, Shafer et al. further disclose where the imaging and illumination subsystems support at least one of a group of inspection modes comprising bright field, ring dark field, directional dark field, full sky, aerial imaging, confocal, and fluorescence (column 3, lines 6-8).

Regarding claims 7-8 and 80-81, Shafer et al. further disclose where the imaging subsystem uses a varifocal system for the full magnification range and where separate imaging lenses are used for specific magnification increments (column 10, lines 44-56).

Regarding claims 9, 82, 85 and 91, Shafer et al. further disclose a data analysis subsystem (104 and column 11, line 61-column 12, line 6) for analyzing data representing the light energy reflected from the specimen, wherein the data analysis subsystem has the ability to record defect position for any defect on the specimen (with 104, fig. 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 9 and 76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leidig in view of Shafer et al., US 2001/0040722 A1.

Leidig further discloses that the system can be used with wavelengths in the ultraviolet (UV) wavelengths but does not disclose the specific UV range of approximately 285 to 320 nanometers or using an arc lamp to provide this range. Shafer et al. teach a system (fig. 1) for inspecting a specimen comprising: an illumination system (101) comprising an arc light able to provide light energy having a wavelength in the range of approximately 285 to 320 nanometers (see page 4, section [0056]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the illumination system of Leidig with a UV arc lamp within the claimed range as taught by Shafer et al. to be able to examine different specimen characteristics.

Response to Arguments

7. Applicant's arguments with respect to claims 1-2, 5-9, 70 and 75-91 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kazakevich, US 6,692,431 B2 discloses a system for examining a specimen with an imaging subsystem with each element having a diameter less than 100 millimeters.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (571) 272-2313. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Drew Dunn can be reached on (571) 272-2312. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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April 28, 2006


MARK A. ROBINSON
PRIMARY EXAMINER